Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the matter of	)	
	)	
Amendment of Parts 2, 21, and 94 of the Commission's Rules to Accommodate Private Microwave Systems in the 1.71-1.85 GHz Band and in Bands Above 3 GHz	)	RM-_____

To: The Commission

PETITION FOR RULE MAKING

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Summary

According to the Commission, one of its primary objectives in Docket 92-9 is to establish a "spectrum reserve" in such a manner as to cause minimal disruption to the operations of existing 2 GHz microwave licensees. In order to minimize the impact of displacement from the 2 GHz microwave band, a necessary condition precedent is that the Commission have adequate replacement spectrum with appropriate technical characteristics available. The Commission's current proposals for replacement spectrum are, however, inadequate to accommodate a relocation of all 2 GHz microwave licensees. The common carrier microwave bands above 3 GHz, as presently configured are not suitable for most private microwave operations.

With approximately 29,000 private and common carrier stations licensed in the 2 GHz band potentially affected by the FCC's spectrum reserve process, it is incumbent upon the Commission to develop specific technical rules to accommodate both the technical as well as the legal eligibility, requirements of any displaced 2 GHz systems, and to provide spectrum for new private microwave systems.

UTC therefore urges the Commission to defer further action in the spectrum reserve proceeding and to commence a separate rulemaking to make the 1.71-1.85 GHz, 3.7-4.2 GHz, 5.925-6.425

GHz, and 10.7-11.7 GHz bands available for routine licensing in the Private Operational Microwave Service under Part 94, and to adopt appropriate channeling plans and technical standards to ensure that these bands are adequate to meet the needs of existing and future private microwave systems.

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PETITION FOR RULE MAKING

Pursuant to Section 1.401 of the Commission's Rules, the Utilities Telecommunications Council (UTC) hereby submits this Petition for Rule Making (Petition) to amend Parts 2, 21 and 94 of the Commission's Rules to provide for use of frequencies in the 1.71-1.85, 3.7-4.2, 5.925-6.425, and 10.7-11.7 GHz bands by private microwave systems licensed under Part 94 of the Commission's Rules. UTC further requests that the Commission defer action in its on-going rulemaking to establish a "spectrum reserve," pending the outcome of this separate proceeding. See Notice of Proposed Rulemaking in ET Docket No. 92-9, FCC 92-20, released February 7, 1992.

I. Introduction

UTC is the national representative on communications matters for the nation's electric, gas, water, and steam utilities. Approximately 2,000 utilities are members of UTC, ranging in size

from large combination electric-gas-water utilities serving millions of customers to small, rural electric cooperatives and water districts serving only a few thousand customers. All utilities depend upon reliable and secure communications facilities in carrying out their public service obligations.

Many utilities operate extensive private microwave systems to meet these communications requirements. Utilities rely heavily on private microwave facilities operating in the 1.85-1.99, 2.13-2.15, and 2.18-2.20 GHz (2 GHz) bands, and would be severely hampered in their ability to provide vital public services if they were forced to vacate these bands without adequate replacement spectrum to which they could migrate their systems.

This petition addresses steps which the FCC should have taken before (or when) it issued the NPRM in ET Docket No. 92-9, to make sure that there would, in fact, be appropriate and adequate replacement spectrum with equivalent reliability to the 2 GHz band in place, for use by displaced users. However, this should in no way be construed as support for the Commission's proposal to establish a spectrum reserve in the 2 GHz band. UTC views the entire proposal as one that is ill-conceived and which will cause a severe and unjustified operational and financial impact on the nation's public utilities, public safety organizations, railroads and petroleum industries. UTC will file comments in response to the NPRM to discuss, among other things,

the viability of creating a "spectrum reserve" in the 1.85-2.2 GHz band as well as the FCC's proposed market-based approach to spectrum reallocation.

II. A Separate Proceeding Is Needed

The present petition requests commencement of a rulemaking proceeding to specifically address technical and coordination rules which would have to be amended to make additional spectrum available for: (1) existing 2 GHz systems that would be displaced by new, emerging technologies, (2) new or modified systems that would have been licensed in the 2 GHz band but for the FCC's new, secondary-only, licensing policies for the 2 GHz band, and (3) new systems that might not be accommodated in other private microwave bands due to the migration of currently-licensed 2 GHz private and common carrier microwave systems.

A. Docket 92-9 Proposes No Technical Rule Changes

In its NPRM in Docket 92-9, the FCC proposes only to "make available" all fixed microwave bands above 3 GHz, in both common carrier and private bands, for reaccommodation of displaced 2 GHz systems. The sum and substance of the Commission's proposal is as follows:

> To provide for this reaccommodation, we propose a "blanket" waiver of the eligibility requirements in these bands for existing 2 GHz fixed microwave users. Specifically, we propose that all existing 2 GHz common carrier and private microwave operations be eligible for relocation to any of the higher frequency fixed

> microwave bands. The technical rules and coordination procedures currently applicable to each of the higher frequency bands, however, will apply. Existing 2 GHz fixed operations that relocate to the common carrier bands will be subject to the coordination procedures of Section 21.100 and 21.706, and those that relocate to private operational fixed bands will be subject to the coordination procedures of Section 94.63. We will encourage licensees moving from the 1.85-2.20 GHz band with path lengths of under 10 miles to reaccommodate their operations in frequency bands above 10 GHz to preserve the general availability of spectrum in the lower bands for longer path links not feasible at the higher frequencies.

The Commission also requested comment on the "feasibility" of making available a portion of the federal government band at 1.71-1.85 GHz for relocation of some 2 GHz operations.[1/]

With approximately 29,000 private and common carrier stations in the 2 GHz band potentially affected by the FCC's spectrum reserve process, it is incumbent upon the Commission to develop specific rules to accommodate both the technical, as well as the legal eligibility, requirements of any displaced 2 GHz systems, and to provide spectrum for new private microwave systems. As adopted, the NPRM in Docket 92-9 does not propose to change any of the technical rules or coordination procedures for any of the bands proposed to be "made available" for displaced 2 GHz microwave systems, nor does it even request comment on or suggestions for changes in relevant technical rules. In fact, the NPRM proposes that users accessing any of this spectrum through "blanket" rule waiver would be required to abide by the

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[1/] NPRM in ET Docket No. 92-9, at paras. 20-21.

technical rules and coordination procedures currently applicable to each of the higher frequency bands.

Thus, it would be beyond the scope of the NPRM in Docket 92-9 for the Commission to develop technical standards or coordination procedures for the fixed microwave services in that docket. An agency's notice must provide sufficient detail and rationale for the rule to permit interested parties to comment meaningfully. Fertilizer Institute v. EPA, 935 F.2d 1303, 1311 (D.C. Cir. 1991) citing Florida Power & Light Co. v. US, 846 F.2d 765 (D.C. Cir. 1988), cert. denied 490 U.S. 1045 (1989). A final rule will be deemed to be the logical outgrowth of a proposed rule if a new round of comments would not provide commenters with their first occasion to offer new and different criticisms which the agency might find convincing. Id. Notice of proposed rulemaking must be clear and to the point. McLouth Steel Products Corporation v. EPA, 838 F.2d 1317, 1323 (D.C. Cir. 1988). Further, while interested parties might file comments in Docket 92-9 on the technical compatibility problems with conducting private microwave operations in the common carrier microwave bands, the Commission could not boostrap notice from any comments it receives so as to establish new technical or coordination standards for these microwave bands. See American Federation of Labor v. Donovan, 757 F.2d 330, 338 (D.C. Cir. 1985).

Aside from the strict requirements of the Administrative Procedures Act, prudence would suggest that the Commission should adopt changes in its technical rules only after soliciting comments from all affected parties on specific rule proposals. Recent history has demonstrated that in some areas, the Commission cannot rely solely on the marketplace to set technical standards; for example, the inability of the marketplace to develop AM stereo standards. In the present situation, the Commission has proposed to relocate up to 29,000 private and common carrier microwave facilities, affecting some 2,800 licensed users, without taking the first step of making available adequate spectrum with appropriate technical characteristics for these displaced users.

Since the Commission has omitted this important first step from its Spectrum Reserve proposal, UTC hereby requests the Commission to promptly initiate a separate rulemaking proceeding to specifically address the technical requirements of displaced 2 GHz licensees, and to make appropriate changes in its Rules to accommodate these systems.[2/] In view of the number and potential complexity of the rule waivers which would be required to accommodate the similarly-situated 2 GHz licensees, the

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[2/] In the interest of expediting this process, the Commission could issue a Further Notice of Proposed Rulemaking in ET Docket No. 92-9, and request interested parties to file unified comments on both the original NPRM and the Further Notice.

Commission should proceed with further rulemaking on this preliminary issue.

B. Docket 92-9 Does Not Address Spectrum for New Microwave Systems

It is important to note that the NPRM in ET Docket No. 92-9 proposes no relief for private microwave users wishing to install new microwave systems or to expand existing 2 GHz microwave systems. The Commission's proposal is limited to waiving eligibility requirements "for existing 2 GHz fixed microwave users" in order to permit "relocation" to any of the higher microwave bands.[3/] In fact, the Commission announced in the NPRM that, effective with the adoption date of the NPRM, applications for new facilities in the 2 GHz band will be "granted on a secondary basis only, conditioned upon the outcome of [Docket No. 92-9]."[4/] Although the full scope of this secondary-only policy is still uncertain, the Commission made clear that this policy applies to all categories of private microwave users, including state and local government agencies.[5/] In view of the critical

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[3/] NPRM in ET Docket No. 92-9, at para. 20.

[4/] By letter dated February 27, 1992, to Ralph A. Haller, Chief, Private Radio Bureau, UTC requested clarification of this secondary-only policy. On March 20, 1992, the Association of American Railroads (AAR) filed a "Petition for Clarification" of this same policy.

[5/] See NPRM in ET Docket No. 92-9, at para. 25: "Consistent with our overall objective in this matter, applications submitted after the adoption date of this Notice for new 2 GHz facilities by state and local government agencies will

(continued...)

functions supported by their private microwave systems, utilities are unwilling to operate microwave systems on a "secondary-only" basis. Therefore, the practical effect of the Commission's 2 GHz licensing policy has been to foreclose licensing of new 2 GHz microwave systems as well as the expansion or modification of existing 2 GHz microwave systems.[6/] Therefore, separate rulemaking is also required to address the spectrum needs of private microwave users proposing either new systems or expansions of existing 2 GHz systems.

C. The Common Carrier Microwave Bands Are Not Suitable As Presently Configured for Most Private Microwave Systems

The Commission's proposal in ET Docket No. 92-9 is based in large part on a technical study conducted by the FCC's Office of Engineering and Technology (OET).[7/] The study concludes that there is adequate capacity in the 3.7-4.2 GHz and 5.925-6.425 GHz common carrier bands, and the 6.525-6.875 GHz private microwave

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[5/](...continued)
be authorized on a secondary basis only, conditioned upon the outcome of this proceeding."

[6/] Among UTC's members are state- and municipally-owned electric, gas and water utilities which are equally precluded from modifying or expanding existing systems, and from installing new 2 GHz microwave systems, despite the Commission's proposal to afford indefinite co-primary status for these entities' existing 2 GHz microwave systems.

[7/] See "Creating New Technology Bands for Emerging Telecommunications Technology," FCC/OET TS91-1 (January, 1992).

band to accommodate all 29,000 existing 2 GHz microwave stations.[8/]

Unfortunately, the vast majority of the spectrum that the Commission cites as being the primary relocation bands for displaced 2 GHz users is allocated to common carrier services, and as such, is not suitable replacement spectrum, as presently configured, for the more than 22,000 private microwave facilities currently licensed in the 2 GHz band. In addition, looking at only the spectrum in the higher microwave bands that is currently available for private operations, it is apparent that the existing private microwave allocations are insufficient to accommodate all of the 2 GHz private microwave users. The FCC's OET study itself, implicitly acknowledges this fact by not distinguishing between bands allocated for common carrier and private microwave services.

Moreover, the OET study did not take the channel bandwidths or other technical characteristics of the higher frequency bands into consideration when it determined the level of available spectrum. The OET study acknowledges that --

> The specific aspects of individual facility operations, such as actual channel bandwidths, were not considered. However, the operational characteristics of the 4 and 6 GHz services are generally comparable to, or more

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[8/] See FCC/OET TS91-1, pp. 17-18 and 24-25.

extensive than, the operational characteristics of the 2 GHz band.[9/]

That the "operational characteristics" of the higher bands are "more extensive than the operational characteristics of the 2 GHz band" is one of the fundamental problems not addressed by either the OET study or the NPRM in Docket No. 92-9. For example, the higher bands that are currently available for private microwave operations do not contain an adequate number of narrowband channel pairs to accommodate the 13,000 existing 2 GHz "skinny route" stations.[10/] The 2.13-2.15 and 2.18-2.20 GHz private microwave bands are channelized into 24 pairs of 800 kHz, or 11 pairs of 1600 kHz, channels. By contrast, the 6.525-6.875 GHz private microwave band is channelized to provide only 6 pairs of 800 kHz channels, or 3 pairs of 1600 kHz channels.[11/] Thus, as presently configured, the 6 GHz private microwave band would probably be able to accommodate only about one-fourth of the 13,000 "skinny route" private microwave stations in the 2 GHz band. The remaining channels in the 6 GHz private microwave band are 5 or 10 MHz wide, and assignment of these channels for low density operations would constitute gross mismanagement of the

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[9/] FCC/OET TS91-1, p. 12, n.19.

[10/] The "skinny route" is the 2.10-2.20 portion of the 2 GHz band.

[11/] Compare 47 C.F.R. §94.65(c) with §94.6(g).

spectrum. Likewise, the common carrier 4 and 6 GHz bands are channelized for generally 20 or 30 MHz bandwidths.[12/]

In addition to incompatible channelization, the channel loading requirements for the 4 and 6 GHz common carrier bands are such that most private microwave systems, including "wideband" operations in the 1850-1990 MHz band, would be ineligible for relocation to these channels. Section 21.710 of the Commission's Rules provides that in the 3.7-4.2 and 5.925-6.425 GHz bands, licensees must load to a minimum of 900 voice-grade channels (4 kHz or equivalent) within 5 years, or operate at a minimum data rate of 10 Mb/s. Similarly, Section 21.122(a)(2), provides that digital systems in these bands must achieve at least 1152 encoded voice channels, which minimum may be reduced by a proportionate decrease in bandwidth. However, given the requirement of Section 21.710(c) for a minimum data rate of 10 Mb/s, as a practical matter licensees are limited to using at least 3.3 MHz bandwidth in the 4 GHz common carrier band or 5 MHz bandwidth in the 6 GHz common carrier band.[13/]

[12/] See FCC OET/TS 91-1, Table 2, p. 14.

[13/] Section 21.122(a)(3) provides that the number of voice channels may be reduced by 1/N provided N transmitters may be operated satisfactorily within an authorized bandwidth equal to or less than the maximum authorized bandwidth over the same radio path. Thus, for example, with a maximum 20 MHz bandwidth for transmitters in the 4 GHz band, if bandwidth is reduced by a factor of 6 (to 3.3 MHz), the minimum channel capacity could likewise be reduced to 1152/6, or 192 channels. This bandwidth would accommodate 8 DS-1's, or a bit rate of 12 Mb/s.

Finally, because of the proliferation of satellite earth receive stations in the 3.7-4.2 GHz band, both licensed and unlicensed, the Commission should address whether part or all of this band can, as a practical matter, absorb any of the displaced 2 GHz operations. Although the OET Study makes casual reference to use of this band for satellite reception, the study makes no attempt to quantify the number of licensed or unlicensed earth stations operating in the band, nor does it assess the impact of these receivers on the licensing of additional fixed microwave stations.[14/] Separate rulemaking is therefore required to identify technical limitations on the licensing of additional 4 GHz fixed microwave facilities or satellite receive-only facilities, or to reallocate part or all of the 4 GHz band to the satellite services on a secondary basis only.

D. Action in Docket 92-9 Should Be Deferred Pending Action in This Rulemaking

As indicated above, a close examination of the Commission's NPRM in Docket No. 92-9 reveals a large number of technical and operational issues. Many of these issues are beyond the

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[14/] See, e.g., FCC OET/TS 91-1, at Table 2, p.14: "3700-4200 MHz band -- Non-protected Home TV dishes. No replacement service on other bands." See, also, p. 17, n.26: "Satellite and [Fixed Service] facilities are co-primary in each of these [4 and 6 GHz bands]. The 3.7-4.2 GHz band is designated as a space-to-earth band where receive only earth stations operate. The majority of home TV satellite receivers operate in this band. The 5.925-6.425 GHz band is designated as a earth to space band or satellite up link." [sic].

immediate scope of the Spectrum Reserve proceeding, and yet their resolution is critical to the viability of creating a spectrum reserve in the 2 GHz band and fairly accommodating existing and future private microwave systems. UTC therefore urges the Commission to defer further action in Docket No. 92-9, and to initiate a separate rulemaking proceeding to revise its technical and coordination rules to make additional spectrum available for private microwave systems.

The Commission followed a similar course of action in the Direct Broadcast Satellite (DBS) proceeding in which a separate rulemaking was commenced to ease the transition for displaced 12 GHz private microwave users.[15/] It is important to note that the need for a separate rulemaking proceeding in the case of DBS was of less immediacy than the present docket, because there was already sufficient private microwave spectrum available to accommodate the users of the 12 GHz band. Moreover, although the DBS Order was adopted prior to resolution of the separate proceeding to accommodate displaced 12 GHz microwave users, the DBS Order deferred the effective date of relocation of 12 GHz users until after the separate proceeding could be resolved.

On review of the DBS Order, the Court was satisfied that the Commission had adequately addressed the accommodation of

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[15/] See Report and Order in General Docket No. 80-603, 90 FCC 2d 676 (1982).

displaced 12 GHz microwave licensees through the institution of a separate proceeding. Significantly, the separate proceeding was concluded by the time of the appeal:

> We note finally that the relevant future proceedings were already in progress at the time of the DBS Order and the Commission had pledged to complete those proceedings by a fixed date that itself merely triggered the five-year period after which relocation would be required: the future proceedings deferred to were thus sufficiently concrete and sufficiently tied to implementation of the policy as a whole that this court was not left to speculate about the likelihood that the agency would expeditiously tie up the loose ends left over from the DBS proceeding. Those proceedings have now been completed, which confirms the Commission's pledge to act promptly.[16/] (citation omitted)

In the case of the Spectrum Reserve, the Commission has created many loose ends, but has not made any plans to tie them up; promptly or otherwise. UTC therefore urges the Commission to commence a separate proceeding to affirm the commitment it made in ET Docket No. 92-9 to "develop a plan that includes specific provisions for minimizing impact on existing services."[17/]

[16/] National Association of Broadcasters v. FCC, 740 F.2d 1190, 1212 (1984).

[17/] NPRM in ET Docket No. 92-9, at para. 6 (emphasis added). See also Separate Statement of Commissioner Duggan, "Specifically, we need to ensure, when change appears warranted and necessary, that we have built in ample transition periods, measures for ensuring adequate compensation, and generous substitute spectrum positions for those who must move." (emphasis added).

III. Frequency Allocations and Technical Rules Needed for Private Microwave Systems

UTC sets forth below a few suggestions for frequency allocations and technical rules which should be modified to make other frequency bands usable in private microwave systems. There may be additional rule modifications required to fully accommodate private microwave systems in the bands suggested, and UTC looks forward to reviewing the comments of other users, equipment manufacturers, and frequency coordinators on the feasibility of licensing private microwave systems in these bands. As noted above, however, these issues can be addressed only if the Commission takes the first step of soliciting public comment.

A. 1710-1850 MHz Government Band

In the NPRM in ET Docket No. 92-9, the Commission requested comment on the "feasibility" of making available a portion of the 1.71-1.85 GHz federal government spectrum for relocation of existing 2 GHz operations.[18/] However, the Commission conceded that the OET Study did not examine spectrum allocated to the federal government "because of the delay and uncertainty that would be involved in obtaining reallocation of such spectrum not under [the FCC's] jurisdiction." The Commission claims to have raised the issue of using the 1.71-1.85 GHz band "in a

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[18/] NPRM in ET Docket No. 92-9, at para. 21.

preliminary fashion" with the National Telecommunications and Information Administration (NTIA), but the NPRM offers no specific proposals for the reallocation of this spectrum for non-federal users.

UTC realizes that the 1.71-1.85 GHz band is currently allocated exclusively to the Federal government. However, there is no restriction on the FCC's ability to enter into negotiations with NTIA regarding sharing of this band. The allocation of the 932-935 MHz and 941-944 MHz bands for Federal government and non-Federal government fixed use is a recent example of such a sharing arrangement.[19/]

Relocation of displaced 2 GHz microwave users to the 1.71-1.85 GHz band would cause the least disruption to on-going 2 GHz operations, since the propagation characteristics of both bands are nearly identical. Moreover, the cost of such a relocation would be substantially less than a shift to a higher band. UTC estimates that the cost to convert from 1.85-2.20 GHz to 1.71-1.85 GHz would be approximately $10,000 per station, assuming the licensee can tolerate the minimum 1-2 day downtime to perform the necessary equipment modifications and assuming that the new channel bandwidth at 1.71-1.85 GHz is equivalent to the

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[19/] See First Report and Order in GEN. Docket No. 82-243, FCC No. 84-556 (1984).

licensee's current bandwidth.[20/] The costs would increase to about $21,000-$32,000 per station if the licensee must convert from a narrowband operation to a wideband operation.

Obviously, any shared use of this band with the Federal government would have to ensure that the Federal users of the band experience no interference to their existing operations. However, this should not be a problem since one of the primary uses made of this band by the Federal government is point-to-point microwave. Such shared use was specifically recommended by the House Committee on Energy and Commerce in its Report on H.R. 531, the Emerging Telecommunications Technologies Act of 1991:

> The Committee notes that currently, NTIA and the FCC each administer adjacent blocks of frequencies for the same or similar purposes. For example, NTIA has licensed government fixed microwave users to utilize frequencies between 1710 mHz and 1850 mHz. The FCC licenses non-federal fixed microwave users on frequencies between 1850 mHz and 1990 mHz. Maintaining separate blocks of frequencies for fixed microwave services constitutes an inefficient approach to spectrum management. That inefficiency is particularly egregious in this instance, inasmuch as it is relatively easy to engineer fixed microwave networks -- of both federal and non-federal users -- so as to avoid harmful interference.[21/]

In a just-released Spectrum Resource Assessment (SRA), NTIA has provided further information confirming the suitability of the 1.71-1.85 GHz band for shared use by private microwave

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[20/] If a licensee cannot tolerate an extended outage the cost would be approximately $75,000 per station for narrowband equipment.

[21/] H.R. Rep. No. 102-113, 102d Cong. 1st Sess. 16 (1991).

systems.[22/] The SRA reveals that of the 5,539 frequency assignments currently listed in the Government Master File (GMF) for the 1.71-1.85 GHz band, about 4,840 (87%) are in the fixed service for point-to-point, line-of-sight, operations.[23/] Significantly, the equipment used in this band for fixed operations is largely commercial equipment purchased off-the-shelf which can be crystal tuned to any frequency across the 1.7-2.4 GHz band.[24/] Indeed NTIA's technical standards for fixed systems in the 1.71-1.85 GHz band are virtually identical to the FCC's standards for private microwave systems in the 1.85-1.99 GHz band.[25/]

Further, the NTIA SRA indicates that federal agencies are making use of the 1.71-1.85 GHz band for the same types of operations as private microwave users in the 1.85-2.20 GHz band. For example, the SRA describes how the Department of Energy (DOE) uses the band for supervision, control, and protection of power administration operated electrical power transmission systems, and that these microwave systems must be capable of carrying hundreds of radio channels per system for high speed relaying, supervisory control, load control, telemetering, data

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[22/] Federal Spectrum Usage of the 1710-1850 and 2200-2290 MHz Bands, NTIA TR 92-285 (March 1992).

[23/] Id. p. 4-3.

[24/] Id., p. 5-22.

[25/] Compare NTIA TR 92-285 Tables 3-6 with 47 C.F.R. §§94.71 and 94.75.

acquisition, land-mobile dispatching, operations and maintenance -- in short, the same functions routinely supported by the 1.85-2.20 GHz band for private sector utilities. The SRA further notes that, "Common equipment exists with the non-government sector allowing interconnectivity for critical communications dealing with all aspects of generating and distributing power."[26/] Despite the SRA's apparent contention that this band is heavily congested, it should be noted that the 1.85-1.99 GHz private microwave band contains nearly twice the number of fixed point-to-point frequency assignments as the 1.71-1.85 GHz band (9,258 vs. 5,539).[27/]

NTIA itself has suggested elimination of the distinction between federal and non-federal microwave allocations since in the microwave bands, coordination procedures are well established and the affected equipment has well-known technical characteristics.[28/] Likewise, at a March 26, 1992, meeting among the FCC staff and private microwave users, it was agreed that the Commission should promptly commence discussion with NTIA concerning private access to the 1.71-1.85 GHz band. By this Petition for Rulemaking, UTC calls on the Commission to formally commence this process.

[26/] NTIA TR 92-285, at pp. 4-1, 4-2.

[27/] The station count for the 1.85-1.99 GHz band is taken from the OET Study, OET/TS 91-1, p.8.

[28/] U.S. Spectrum Management Policy: Agenda for the Future, NTIA Special Publication 91-23 (February 1991), at p. 67 n.200.

B. 4 GHz Common Carrier Band

UTC recommends that the 3.7-4.2 GHz (4 GHz) common carrier band be made available for routine licensing in the Private Operational Fixed Microwave Service on a co-primary basis. UTC also recommends that the 4 GHz band be rechannelized into 1.6 MHz, 5 MHz and 10 MHz bandwidth channels that would be available for "stacking" to accommodate systems with wider bandwidth requirements. Loading requirements for this band should be eliminated for private microwave systems.

As noted above, the proliferation of earth stations in the 4 GHz band renders the majority of the band practically useless as spectrum for new fixed microwave operations. UTC therefore recommends that the Commission designate at least 80 MHz (e.g., 40 MHz from either end of the band) as being available to the Fixed-Satellite Service on a secondary-only basis, thereby limiting primary use of this spectrum to the Fixed Services under Parts 21 and 94.

C. 6 GHz Common Carrier Band

UTC recommends that the 5.925-6.425 GHz (6 GHz) common carrier band be made available for routine licensing on a co-primary basis in the Private Operational Fixed Microwave Service. UTC also recommends rechannelizing the 5.925-6.425 GHz common

carrier band into 1.6 MHz, 5 MHz and 10 MHz bandwidth channels that would be available for "stacking" in order to accommodate systems with wider bandwidth requirements. UTC also requests elimination of the loading requirement for this band for private microwave systems.

D. 11 GHz Common Carrier Band

UTC recommends that the 10.7-11.7 GHz (11 GHz) band be made available for routine licensing on a co-primary basis in the Private Operational Fixed Microwave Service. UTC requests elimination of the loading requirement for this band for private microwave systems.

IV. The FCC Should Establish An Industry Advisory Committee

UTC proposes that the FCC convene an industry advisory committee to develop new technical requirements and interference criteria for the 4, 6 and 11 GHz common carrier bands. The Commission's proposal in ET Docket No. 92-9 to waive eligibility requirements for private microwave access to these bands does not address the issue of interference standards between common carrier and private microwave systems in the replacement bands. The current common carrier microwave interference standards do